

Law Offices of Mark C. Pickering  
P.O. Box 300  
Petaluma, CA 94953-0300  
Main Telephone: 707/762-5500  
Facsimile: 707/762-5504

## FACSIMILE TRANSMITTAL

**To:** Office of Initial Patent  
Examination's Filing Receipt  
Corrections **Fax:** 703/746-9195

---

**From:** Robin King for Mark C.  
Pickering **Date:** November 26, 2003

---

**Re:** Second Request for  
Corrected Filing Receipt for  
10/634,179 **Pages:** 9 (including cover sheet)

---

## Second Request to Correct Official Filing Receipt

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Waclaw C. Koscielniak

Appln. No.: 10/634,179

Filed: August 5, 2003

For: PHOTONIC CRYSTALS USING A  
SEMICONDUCTOR-BASED FABRICATION  
PROCESS (as amended)

Group Art Unit: 2873

Examiner: Unknown

SECOND REQUEST TO CORRECT  
OFFICIAL FILING RECEIPTOffice of Initial Patent Examination's Filing Receipt Corrections  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed please find a copy of the Filing Receipt (with corrections to filing fee received, total claims and Independent claims indicated). Pursuant to the Preliminary Amendment filed with this divisional application (copy attached) on August 5, 2003 (postal return receipt postcard attached), there are 6 total claims and 1 independent claim pending. Please make the necessary three corrections and forward the ~~corrected~~ Filing Receipt to the correspondence address indicated below.

Respectfully submitted,

Dated: 11-26-03By: Mark C. PickeringMark C. Pickering  
Registration No. 36,239

Attorney for Assignee

P.O. Box 300  
Petaluma, CA 94953-0300  
Direct Dial Telephone No. (707) 762-5583  
Main Telephone: (707) 762-5500  
Facsimile: (707) 762-5504  
Customer No. 33402Atty. Docket No.: 100-15210  
(P05000-D01)

-1-

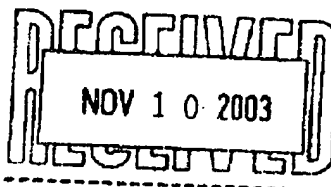


## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/634,179	08/05/2003	2873	894 750	100-15210 (P05000-D01)	6	26	21

33402  
LAW OFFICES OF MARK C. PICKERING  
P.O. BOX 300  
PETALUMA, CA 94953



CONFIRMATION NO. 7113

## FILING RECEIPT

\*OC000000011207461\*

Date Mailed: 11/06/2003

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Waclaw C. Koscielniak, Santa Clara, CA;

## Domestic Priority data as claimed by applicant

This application is a DIV of 09/929,661 08/14/2001 PAT 6,633,427

## Foreign Applications

If Required, Foreign Filing License Granted: 11/05/2003

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

## Title

Photonic crystals using a semiconductor-based fabrication process

## Preliminary Class

359

---

**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

Express Mail Number EV342470428US **PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:

Waclaw C. Koscielniak

Appln. No.: Divisional of 09/929,661

Filed: August 5, 2003

For: PHOTONIC CRYSTALS USING A  
SEMICONDUCTOR-BASED  
FABRICATION PROCESS  
(as amended)

Group Art Unit: Unknown

Examiner: Unknown

PRELIMINARY AMENDMENTINTRODUCTORY COMMENTSCommissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a Preliminary Amendment. Please amend the above-identified application as indicated on the following pages.

Divisional of 09/929,661  
PRELIMINARY AMENDMENT

-1-

Attorney Docket No. 100-<sup>15210</sup>~~16810~~  
(P05000-D01)

PATENT

AMENDMENTS TO THE SPECIFICATION

Please amend the title in all instances as follows:

~~METHOD OF FORMING~~ PHOTONIC CRYSTALS USING A SEMICONDUCTOR-BASED  
FABRICATION PROCESS

Please insert the following paragraph before the first paragraph on page 1:

This is a divisional application of Application Serial No. 09/929,661 filed on  
August 14, 2001.

Divisional of 09/929,661  
PRELIMINARY AMENDMENT

-2-

15210  
Attorney Docket No. 100-16810  
(P05000-D01)

PATENTAMENDMENTS TO THE CLAIMS

Claims 1-14 (Cancelled).

15. (Original) A photonic crystal formed on a semiconductor substrate, the substrate having a receiving region, the photonic crystal comprising:

a plurality of spaced-apart photonic stacks formed over the receiving region of the substrate, the photonic stacks having top surfaces, each photonic stack having a plurality of layers of material that alternate between a first layer of material and a second layer of material, the first layer of material having a first dielectric constant, the second layer of material having a second dielectric constant; and

an interstack material formed over the substrate between and adjoining the plurality of photonic stacks.

16. (Original) The crystal of claim 15 wherein the first layer of material is a dielectric.

17. (Original) The crystal of claim 15 wherein the interstack material has a top surface that is substantially coplanar with the top surfaces of the stacks.

18. (Original) The crystal of claim 15 wherein the interstack material has a top surface that is above the top surfaces of the stacks.

19. (Original) The method of claim 15 wherein the layer of interstack material is a dielectric having a dielectric constant that is equal to the dielectric constant of the layer of first material.

20. (Original) The method of claim 15 wherein the layer of interstack material is a dielectric having a dielectric constant that is different from the dielectric constant of the layer of first material.

Divisional of 09/929,661  
PRELIMINARY AMENDMENT

-3-

15210  
Attorney Docket No. 100-16810  
(P05000-D01)

PATENTREMARKS

This is a preliminary amendment to a divisional application. Claim 15-20 are in this application. Claims 1-14 have been cancelled. In addition, the title has been amended to reflect the apparatus claims, and the specification has been amended to identify the prior application information.

Respectfully submitted,

Dated: 8-5-03

By: 

Mark C. Pickering  
Registration No. 36,239  
Attorney for Assignee

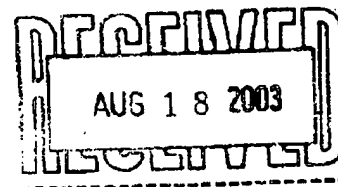
P.O. Box 300  
Petaluma, CA 94953-0300  
Direct Dial Telephone No. (707) 762-5583  
Telephone: (707) 762-5500  
Facsimile: (707) 762-5504  
Customer No: 33402

Divisional of 09/929,661  
PRELIMINARY AMENDMENT

-4-

Attorney Docket No. 100-<sup>15210</sup>~~16810~~  
(P05000-D01)





(Div. of 100-15200)

Patent Appl. No. NEW File No. 100-15210 By: MCP

In the Matter of the Application of: Wallaw C. Koscielniak

Title: Photonic Crystals Using a Semiconductor-Based

Date Mailed: 08-05-03 Date: 08-06-03

The following has been received in the U.S. Patent and Trademark Office on the date stamped hereon:

<input checked="" type="checkbox"/> Transmittal Letter <input checked="" type="checkbox"/> Patent Application <u>Divisional</u> <input checked="" type="checkbox"/> <u>14</u> pgs. specification including (Claims and Abstract) <u>(10)</u> <input checked="" type="checkbox"/> Drawings: <u>16</u> sheet <u>(16)</u> formal <u>(16)</u> informal <input checked="" type="checkbox"/> Oath/Declaration <u>(copy)</u> <input type="checkbox"/> Assignment w/ Form PTO-1595 <input type="checkbox"/> Power of Attorney <input type="checkbox"/> Small Entity Statement <input checked="" type="checkbox"/> Deposit Account Authorization (in duplicate) <input checked="" type="checkbox"/> Information Disclosure Statement, PTO-1449 w/ <u>16</u> refs. <input checked="" type="checkbox"/> Check \$ <u>750.00</u> <input checked="" type="checkbox"/> Amendment/Response <u>(Preliminary)</u> <input type="checkbox"/> Request for Extension of Time (____ months)(patent) <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Notice of Appeal <input type="checkbox"/> Appeal Brief (in triplicate) <input type="checkbox"/> Letter to Official Draftsperson <input type="checkbox"/> Maintenance Fee Transmittal <input checked="" type="checkbox"/> Non Publishing Request	<input type="checkbox"/> Request For: <input type="checkbox"/> Status Inquiry <input type="checkbox"/> Certificate of Mailing <input checked="" type="checkbox"/> Express Mail Certificate No. <u>EV34247042BLLS</u> <input type="checkbox"/> Certificate under §3.73(h) <input type="checkbox"/> Certificate of Correction (PTO Form 105(i)) <input checked="" type="checkbox"/> Issue Fee Transmittal <input type="checkbox"/> Fee Transmittal <input type="checkbox"/> Petition for <input type="checkbox"/> Other:  <u>08306 U.S. PTO</u> <u>10/634179</u> <u>08/05/03</u>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------